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ABSTRACT

This packet consists of the instructor outline and trainee manual for a craft orientation course. The instructor outline provides a course overview that includes the following: target audience, outline of instruction for the 8-hour course, instructor notes (content, methods, supplies, list of references, list of handouts, and equipment/materials list), historic information, and course outline. The trainee manual begins with a list of trainee objectives and introductory questions. The main body of the manual is divided into three sections. Each section provides instructional or informational materials. The three sections cover the construction industry, construction laborer craft, and Laborers' International Union of North America. An assignment sheet concludes the manual. (YLB)

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ED 379 420

CRAFT ORIENTATION

INSTRUCTOR OUTLINE

TRAINEE

MANUAL

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CRAFT ORIENTATION
INSTRUCTOR GUIDE

COURSE OVERVIEW

Target Audience

The Craft Orientation Course's primary target audience is the young adult who has recently joined or is exploring a career in the construction industry. Included in this group are young adults who are experiencing a difficult school to work transition due to a variety of reasons such as poor self concept, low academic standing, inattention to career planning, or lack of awareness regarding career opportunities. Other interested individuals are laborers that have recently started a construction career and would like to be informed about the industry they have entered.

Background/Goals

The orientation is part of a comprehensive education and training strategy to ensure an adequate number of quality construction laborers for a growing industry demand. Construction laborers that are informed about the industry and are capable of making educated decisions regarding the careers available to them within this industry. The primary goal is to motivate the target audience to think critically about and explore a career as a construction laborer.

Introduction (20 minutes)

This is designed to provide a summary of the entire course in a condensed format.

- overview of the construction industry
- overview of the construction laborer trade
- overview of the Laborers International Union of North America
- overview of the training fund structure and related LIUNA funds

The Construction Industry (2 hrs)

The Construction Industry module is designed to introduce participants to basic concepts of the industry. Topics include:

- the identification of industry groups
- the relationships of various contracting agencies
- examples of chains-of-command at project sites
- worker-employer roles and responsibilities
- the relationship between labor and management

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The Construction Laborer Craft (2 hrs)

The Construction Laborer Trade module will introduce participants to the types of tasks laborers commonly perform, what are average wage and benefit packages, how to plan for upward mobility in the industry, and how to plan for continuous employment. Topics include:

- description of major skills
- description of career path and methods of upward mobility
- description of wage structures and how they are tied to skills
- employment potential and methods

The Laborers International Union of North America (2 hrs)

This section addresses the Laborers International Union of North America (LIUNA). The intent is to describe how the union originated, the purpose and members it serves, how it is structured and administered, and its future direction. Topics include:

1. history
2. purpose
3. structure
4. future direction
5. purposes and services provided by LHSFNA and LECET

Laborers-AGC Training (1 hr)

This section contains instruction regarding training and related funds. The topics focus on the structure and availability of training through LIUNA negotiated funds and the purpose and services provided by the Laborers Health and Safety Fund of North America (LHSFNA) and the Laborers Employers Cooperation and Education Trust (LECET).

1. training funding structure
2. availability of training

Closing (1 hr)

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INSTRUCTOR NOTES

Goal

This course is part of a comprehensive strategy to develop construction laborers who are qualified for a growing industry demand, informed about the industry and the union, and capable of making sound career decisions.

Trainees

The trainees are new entrants, experienced laborers, or young adults who are exploring a career in the construction industry.

Number of Trainees

Twenty (20) - Twenty Five (25)

Content/Duration

The orientation is eight (8) hours and consists of the following modules and timeframes:

Introduction Introduces the trainees, overviews the course goals, objectives and content of the remaining modules and involves the trainees in an icebreaker activity. (8:00 a.m. - 8:20 a.m)

The Construction Industry (Pages 3 - 12) defines industry groups and the type of work performed, forecasts industry projections, and describes how the industry works, i.e., the relationship among various contracting agencies, the chain of command at a project site, worker-employer responsibilities, the relationship between labor and management, and laborer job tasks and tools/machines. (8:20 a.m. - 10:30 a.m., Break 10:00 a.m. - 10:10 a.m.)

The Construction Laborer Craft (Pages 12 - 18) lists the most frequent job tasks, introduces the major tools and equipment, and describes wage and benefit structures. (10:30 a.m. - 1:00 p.m., Lunch 12:00 p.m. - 12:30 p.m.)

The Laborers' International Union of North America (LIUNA) (Pages 19 - 28) briefly describes the history and purpose of American unions and traces how LIUNA and AGC evolved into its current mission, structure, benefits, and future direction. (1:00 p.m. - 3:10 p.m., Break 2:30 p.m. - 2:40 p.m.)

Describe LIUNA's and the AGC's collaboration as a vehicle for continuous professional development. (3:10 p.m. - 4:10 p.m.)

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Summary recaps the key points and provides an opportunity for the trainees to consider their career as a laborer. (4:10 p.m. - 4:30 p.m.)

Methods

The orientation consists of:

- construction laborer trade printed and audiovisual materials;
- hands-on demonstrations;
- construction laborers, contractors, union officials and others as guest speakers;
- informal small and large group discussions of readings and videotapes; and,
- an emphasis on building self-concept, i.e., the trainees' beliefs about their capabilities.

SUPPLIES

Table/Chair Arrangement

U- shaped with a space after every fifth trainee to allow for small group discussion

References

From the AFL-CIO: "The George Meany Center for Labor Studies Catalog"

From LIUNA: "Pension Fund for Local Unions and District Councils of the Laborers International Union of North America, June 1987"

- Laborer magazines
- Constructor magazines
- Working at the Calling: New Directions for the Laborers

From Laborers-AGC:

- General Construction Course Manual
- Concrete Practices and Procedures Manual
- Pipelaying I and II Course Manual
- Practices and Procedures of Mason Tending I and II Course Manual
- Foreman Preparedness Manual: A Course for Success
- Asbestos Abatement Worker Course
- Hazardous Waste Removal Worker Course
- Lead Abatement Worker Course

Handouts

From Laborers-AGC:

- Course Programs Flyers and Brochures
- Training Tips

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From LHSFNA: General Information Brochure

From LECET: General Information Flyer

Equipment/Materials

- Instructor Manual
- Trainee Manuals
- notepads and pencils
- 1/2" VCR player and monitor
- flipchart pad, easel, and markers or white board
- "Making It Work" video
- "Foundation for Success" video
- "Responding to the Need" video

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HISTORIC INFORMATION

On January 1, 1992, the U.S. Department of Education approved funding for a professional development program designed for construction laborers, from the new entrant to the experienced member. The program offers a complete career path, starting with the Craft Orientation Course. Through a logical progression of general and speciality courses, the career path offers competency certification at three levels: Level 1, Beginning and Refreshing Skills; Level 2, Construction and Environmental Skills; and, Level 3, Supervisory Skills. In addition, the career path includes new relationships with high schools, vocational-technical schools, and colleges and universities to encourage career advancement.

The need for the program evolved from the changing composition of the working population and the widening gap between job requirements and worker qualifications as described below:

As backgroung information you may want to look at the Laborer magazine article, "The Work Force of the Future: From Challenge Comes Labor's Opportunity" and the LIUNA Bulletin, "Work Force 2005: The Future Demands Training."

The Workforce of the Future:
From Challenge Comes Labor's Opportunity

Citing statistics is always a risky business. This is especially true of those put forth by experts predicting major changes in the way we work, live, and do business. The economy does change; people and work do change. But the time between the identification of a trend and its full evidence in society can be longer than initially projected.

For example, in the 1980's, manufacturing contributed about 22-24 percent of the total Gross National Product, a percentage that has remained steady for 30 years. Does this mean that the economy has not changed? Of course not. Basic industries such as steel, automobiles, and other heavy manufacturing fell off dramatically in the past 20 years. However, the manufacture of items such as computers, high technology equipment, business equipment, and other products has expanded dramatically, making up for the loss.

It is useful to keep prior experience in mind when reviewing the expert's predictions for the work force in the year 2000. Leading thinkers are telling us that trends that will change the American work force will start becoming evident in the 1990's.

One study that has had a major impact on thinking about employment issues of the future is "Work Force 2000," by William B. Johnston and Arnold H. Packer of the Hudson Institute, a private research organization. The study makes numerous predictions about the global economy and the American economy, but its projections on the composition and

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the skills demanded of the work force are of particular interest to LIUNA and other unions with a diverse membership.

A key point made in the Hudson study concerns the changing demographics of the American work force. The study says:

- The population and the work force will grow more slowly than at any time since the 1930's; this slower growth could lead to shortages of workers in some sectors of the economy.

- The average age of the work force will rise. While this means a supply of older, more experienced workers, it also means a greater number of workers less likely to move to new locations, undertake retraining, or otherwise be adaptable to change.

- More women will enter the work force. More than two-thirds of the new entrants (not the total working population, but those taking jobs for the first time) into the work force will be women. This is expected to create even more demands for child care, parental leave, and interest in part-time and flexible-hour jobs.

- Minorities will constitute a larger share of work force entrants. Again, of those entering the work force, non-whites will comprise 29 percent, twice their current share of the working population. Only about one in seven new work force entrants will be a native-born white male.

- Immigrants will represent their largest share of the increase in the population and the work force since World War I. The concentration of these workers in the South and West could reshape the economies of those regions.

Will all of this come to pass? Some of the Hudson Institute's numbers have been questioned. Even if the percentages are not accurate, the trends seem evident. The only issue is how fast population trends will catch up with the work force trends.

While changing demographics represent a fact to be taken under consideration, the second major projection of the Hudson Institute study - the growing demand for skilled workers - has far more important implications. Construction jobs, for example, are becoming more and more complex, with new technology affecting the work site, and new areas - such as asbestos removal and hazardous waste disposal - growing. Unfortunately, this demand coincides with the increasing inability of the American educational system to produce skilled young people.

Secretary of Labor Elizabeth Dole recently cited statistics showing that 25 percent of young Americans drop out of school; 60 percent cannot add up their own lunch bills; and 70 percent of graduating seniors cannot compose a basic letter of application. Again, even allowing for some exaggeration, these figures do not bode well for either the workers or the employers of America.

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A report by the Commission on Workforce Quality and Labor Market Efficiency, transmitted on Labor Day 1989 to the Secretary of Labor, has called for greater government commitment at both the federal and state levels for human resource programs. The Secretary of Labor has already taken steps to institute private/public programs to enhance training and educational opportunities.

The new emphasis on human resource development represents both a challenge and an opportunity for labor. In the organized construction industry and many others, union and labor-management programs, such as those offered by LIUNA , have set the standard for the training of skilled workers. The existing mechanism of LIUNA's various trust funds provides both the union and management with an effective vehicle to adapt to new technology and new job opportunities, as witnessed in the past.

There are many questions. Which road will new entrants into the work force take? Will they be placed in government-run and/or non-union programs which give them basic training and send them into the work force? Or will they find opportunities in the union sector to learn the skills that will enable them to meet the demand for the jobs of the future?

The demographics of the new workers and the needs of the future provide labor with an opportunity to increase its share of the labor force and build upon its success in training and education. The ability to organize and recruit new work force entrants will be the key to turning the challenge of the 1990's into the opportunity of the 21st century.
(Adapted from Laborer, January-February, 1990)

Workforce 2005: The Future Demands Training

We talk often about the future, especially about what lies ahead for tomorrow's workers. But we do not often realize the importance of today's workers in tomorrow's economy. The future of our industries, and of countless others, depends greatly on what we do today.

LIUNA has always been a catalyst and advocate for job and skill training. Training is for every member -- and is an opportunity to better themselves at any stage in their lives. Recently-released government reports make a strong and compelling case for workers of every age to "get into training."

According to the Bureau of Labor Statistics (BLS), the American labor force will grow more slowly in the next 15 years than it did in the last 15 years. Most experts agree that the work force should increase only 21 percent between 1990 and 2005, compared with 33 percent between 1975 and 1990. The major reasons for this slowdown are not economic, but demographic. For example, an aging population will drive down the number of births. Quite simply, fewer new workers will replace those who stop working.

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The rate of labor force participation is expected to increase between 1990 and 2005, but not enough to make up for a slower population growth. Overall, 69 percent of the civilian non-institutional population aged 16 and older should be either working or looking for work in 2005, compared with 66 percent in 1990. The participation rate of men aged 25 to 54 is expected to decline from 94 percent to 92 percent, while the participation of women in the same age group should increase from 74 percent to 82 percent. Women between the age of 25 to 54 will compromise 48 percent of America's work force in 2005, compared with 45 percent in 1990.

In addition, the numbers of Asian and Hispanic workers are expected to increase 74 percent and 75 percent, respectively. Hispanics should grow from 8 percent of the labor force to 11 percent, Asians from 3 percent to 5 percent. The government also estimates that African-Americans will increase their work force participation from 11 percent to 12 percent.

Slower overall labor force growth can slow down economic growth if we fail to ensure that workers are as well trained and productive as possible in the future. Skill enhancement, training, retraining and livelong learning opportunities for each and every member of this International Union -- especially as they get older -- is not just a good idea. It is a commitment to our members and one of the most effective strategies to keep our country competitive. (Adapted from LIUNA Bulletin, No. 12, May 14, 1992)

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COURSE OUTLINE

Introduction (20 min)

Welcome the trainees, introduce yourself, *overview the course goal and module objectives/content* on page 1, and briefly describe your work experience and education/training.

Ask the trainees to introduce themselves and briefly describe their work experience and education/training.

Ask the trainees to write down their answers to the *"Introductory Questions"* on page 2 and verbally present their answers to the class.

You do not need to discuss their answers; explain that the trainees will answer the questions again at the end of the course and discuss any changes at that time.

The Construction Industry (2 hrs)

Introduce and play the *video, "Making It Work."* The twenty (20) minute video describes the organized construction industry, particularly the industry groups and type of work performed, the relationship among various contracting agencies, the chain of command at a project site, worker-employer responsibilities, the relationship between labor and management, and laborer job tasks and tools/machines.

Encourage the trainees to take notes while they are watching the video. After the video, divide the class into four teams and *ask each team to summarize the video's key points,* discuss their own experiences, and list any questions or concerns.

Select a spokesperson from each team to present that team's findings; lead a class discussion on the key points, experiences, and questions/concerns. Supplement the discussion with sections

- "What is the construction industry?"
- "What type of work do laborers perform in these categories?"
- "How much work is there?"
- "What are the relationships of the different types of construction companies?"
- "What is a normal chain of command for a construction project?"
- "What are the responsibilities of the employer and the employee in the construction industry?"
- "What steps could I take to succeed in this industry?", and
- "What is the construction laborer craft?" on pages 12,13 and the video's key points.

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The video's key points are:

- The organized construction industry demands skill, safety, and productivity for those who are willing to work for it.

- Laborers provide the skills and the muscle that hold many facets of the industry together. They are key players on the team that makes the industry work; the laborers' future and the future of the organized construction industry depends upon everyone on the team making it work.

- The laborer's goal is to gain the knowledge and experience through training to qualify for the best paying, most stable jobs.

- The unionized contractor's goal is to have a skilled, competent team to remain competitive in the construction market.

- LIUNA and AGC joined forces to create the Laborers-AGC Education and Training Fund to keep North America's construction industry the most productive in the world. Laborers-AGC provides training for the beginner and the seasoned laborer who wants to increase their job opportunities. Training enables laborers to qualify for an entry level job and to keep up to date with changing technology and job requirements throughout their professional careers.

- The construction project consists of the following components: plan, working drawings, cost estimates, bid, award, and daily operations.

- The Business Agent negotiates worker contracts, fringe benefits, and safe working conditions. These benefits add up to increased security for the laborer and his or her family.

- Laborers are essential to the other crafts because they perform a variety of diverse job tasks.

Discuss your *area's projections* by industry group.

Hand out and *review Laborer magazine* occupational spotlight articles, if appropriate for your area.

The Construction Laborer Craft (2 hrs)

Conduct a *training fund tour.*

Distinguish between the content covered in the classroom and the content covered in the simulated areas.

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Describe the uses of the tools and machines used in the classroom and in the simulated areas; use the Laborers-AGC's Training Tips as a reference and a handout.
Select three tools and/or machines for a *hands-on demonstration.*

Base your decision on availability/accessibility and popularity at the time, (e.g., jackhammer, 90 pound pavement breaker, transit/level, tamper, vibrating plate, half-face respirator, tie-back suit).

Allow the new entrants and experienced laborers to demonstrate the tools/machines after you; trainees from high schools and vocational-technical schools cannot demonstrate the tools/machines due to legal liability insurance regulations.

The Laborers International Union of North America (2 hrs)

Ask trainees two questions, "What is the benefit of working union?" and "What are the wages and benefits for a construction laborer?" Trainees should summarize answers found on pages 14&15.

Present your area's locally negotiated wage and benefit structure.

Divide the class into four teams of five and *ask each team to read about three sections,* "Issues that Affect Wages and Benefits" (page 16), "Right-to-Work States versus Collective Bargaining States" (page 17), "Taft-Hartley Labor Act" (page 17) "H.R. 5 The Workplace Fairness Bill" (page 18) "OSHA Reform Legislation" (page 18)

Encourage the trainees to take notes while they are reading. After reading, ask each team to summarize the reading's key points, discuss their own experiences, and list any questions or concerns.

Select a spokesperson from each team to present that team's findings; lead a class discussion on the key points, experiences, and questions/concerns.

Supplement the discussion with your own experiences.

Ask the trainees to read the comment on page 28 from Arthur A. Coia, General President, LIUNA regarding the benefits of a union and the sections, "Laborers' International Union of North America (LIUNA)" (page 19) and "LIUNA Benefit Funds" (pages 20-23)

Encourage the trainees to write down any questions while they are reading.
Lead a class discussion on their questions.

Hand out and review the LECET General Information Flyer, the LHSFNA General Information Brochure, the Laborers-AGC Course Programs Flyers and Brochures, and your training fund's course listings.

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Laborers-AGC Education and Training Fund (1 hr)

Introduce and play the *video, "A Foundation for Success."* The ten (10) minute video describes the importance, structure, and availability of training for professional development.

Encourage the trainees to take notes while they are watching the video.

After the video, divide the class into four teams and *ask each team to summarize the video's key points,* discuss their own experiences, and list any questions or concerns.

Select a spokesperson from each team to present that team's findings; lead a class discussion on the key points, experiences, and questions/concerns.

Supplement the discussion with section, "Construction Laborer Craft Career Path" (pages 23-25) and the video's key points.

The video's key points are:

- As technology becomes more complex and the industry more competitive, some training is best done away from the job site.

- LIUNA and AGC joined forces to create the Laborers-AGC Education and Training Fund. Laborers-AGC provides tuition-free training to more than 70 residential training funds across the United States and Canada.

- There are many paths to advancement for rewarding career path opportunities. Laborers who know how to operate specialized tools and machines productively, safely, and skillfully are attractive to contractors.

- Training is opening up brand new industries such as asbestos abatement and hazardous waste removal.

Hand out and review the Laborer magazine articles, "LIUNA Members Speak Out On The Learn At Home Program", "New Course Prepares Laborers for Environmental Training", and "Laborers-AGC Sponsors Air-Trak Drill Training."

Summary (1 hr)

Introduce and play the *video, "Responding to the Need."* The ten (10) minute video describes LIUNA's future plans for developing laborers.

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Present the video's key points:

- Laborers-AGC Education and Training Fund will continue to expand, monitor, and update LIUNA's construction and environmental training programs including leadership and literacy skills. In doing so, Laborers-AGC will address issues associated with funding, recruitment, standardized curriculum, and mandatory training.

- The larger vision is to create career paths to attract new members and encourage current ones to develop themselves professionally. Restate the laborer's statement, "Anything that can give me an edge is what training is all about."

Ask the trainees to write down their answers to the *"Assignment Sheet" on page 29,* compare their answers to the ones completed earlier, and verbally present their answers to the class.

Lead a class discussion on their answers; ask the trainees how the course affected their answers; look for the following theme:

The construction laborer is a professional in a competitive industry characterized by sophisticated technology, new markets, and, as a result, increasing job requirements. For example, today's laborer must be competent in a variety of job tasks and must adapt to change quickly and positively. Career advancement requires a combination of work experience and training/education, including introductory and trade-specific courses followed by higher education for specialty fields.

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EDUCATION AND TRAINING FUND

CRAFT ORIENTATION

Trainee Manual

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CRAFT ORIENTATION

TRAINEE OBJECTIVES

After completing Craft Orientation, you will learn:

1. How to develop good work habits (e.g., promptness, attitude, proper dress, good relationships).
2. How to be productive (e.g., give a days work for a days pay).
3. How to work under a collective bargaining agreement.
4. How to be aware of the growth areas in the construction industry, so that you will remain employed.
5. About the Laborers' International Union of North America (LIUNA) and its related funds.

INTRODUCTORY QUESTIONS

Before we begin Section One, answer the following questions:

1. What does the term "construction laborer" mean?

2. What does a construction laborer do? (Please answer in one sentence.)

3. Why do you want to be a construction laborer?

THE CONSTRUCTION INDUSTRY

The construction industry is one of the most diverse and rewarding industries in the world. From a single-family home, to a railway tunnel under the English Channel, the potential for personal and financial growth is only limited by your willingness to work and learn. A career in construction can provide a good standard of living for you and your family, as well as a sense of pride and accomplishment in the projects you help to build.

Major Construction Industries

It is beyond the scope of this document to list all of the major types of construction. Therefore, we will identify and group them into the following categories:

Building

Construction and reconstruction on residential and commercial buildings.

Highway

Construction and reconstruction on major and minor highways, subdivision streets, bridges, tunnels, or airfields.

Utilities

Construction and renovation on underground utilities and piping systems, such as petroleum, water, sewer, telephone, electric, and natural gas distribution and collection systems.

Environmental

Clean up and restoration associated with hazardous waste removal, nuclear remediation, underground storage tanks, as well as asbestos and lead abatement.

Required Skills for Each Construction Industry

Construction laborers are not the "all-brawn and no-brain" workers that the name implies. In addition to the physical demands of the job, they perform critical tasks that require specialized thinking and technical skills.

The **building** industry requires laborers to be skilled in:

- Reading and correctly interpreting blueprints and project specifications.
- Setting and controlling elevations, aligning foundations, and other building structures using laser levels, builders levels, and transits.
- New and old technologies for concrete placement.

The **highway** industry requires laborers to be skilled in:

- Reading and correctly interpreting blueprints and project specifications.
- Working with elevation and alignment control instruments.

- Calculating volumes and area of complex shapes.

The **utility** industry requires laborers to be skilled in:

- Setting up lasers for alignment and elevation control.
- Reading and correctly interpreting blueprints and project specifications.
- Calculating volumes and quantities.
- Installing some of the most complicated utility systems in the world.

The **environmental** clean up industry requires laborers to be skilled in:

- Working with existing and potential hazards at the work site.
- Chemistry and industry specific training, so the worker can operate the most modern testing and analysis equipment. (This training is required only if workers are assigned to the testing and evaluation stage of the project.)

How Much Work is Available?

Construction remains a major growth industry in North America and a source of jobs for new entrants into the work force. Construction jobs are growing at a steady pace. The United States Bureau of Labor Statistics (BLS) predicts construction jobs will grow from 760,000 to 1.2 million in this decade. These growth areas are shown in Figure 1-1.

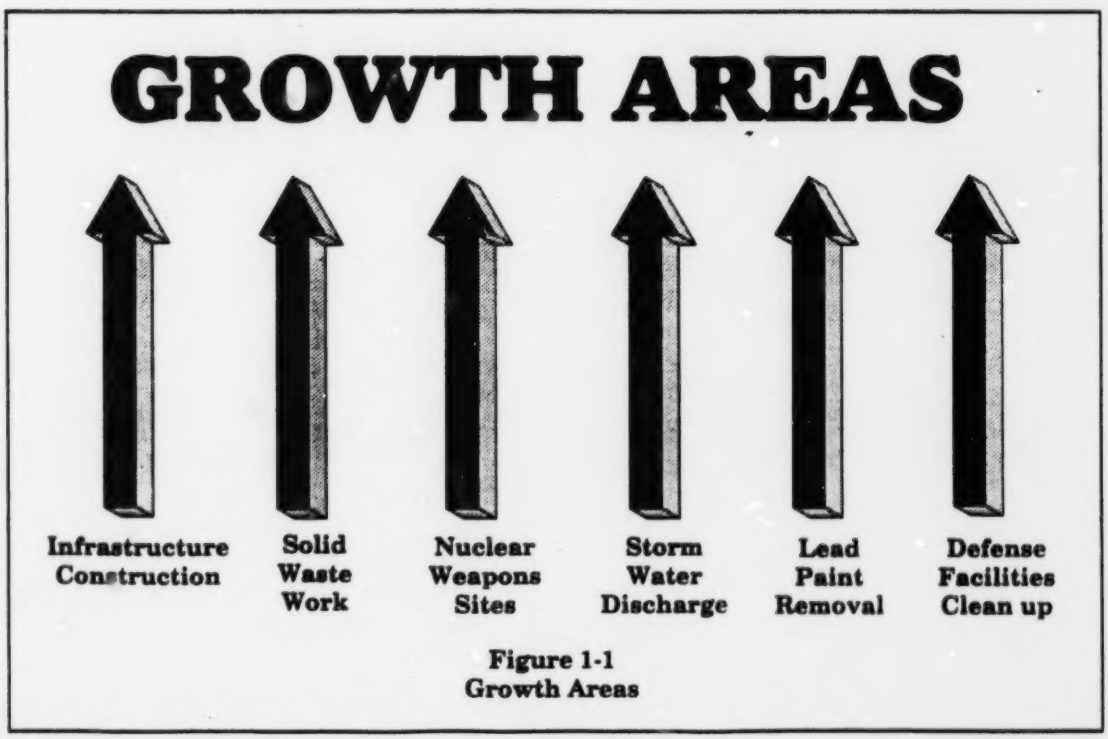

Figure 1-1
Growth Areas

Building Projections

Annual construction spending is increasing, even though non-residential building, commercial construction, and office construction is declining. Annual construction spending dipped as low as 393.3 billion in June 1991, but increased to 406.3 billion in November 1991. Industrial and public construction remain steady at rates substantially higher than the late 1980s. Businesses plan to spend $558.6 billion on plants and equipment in 1992, which is a 5.4% increase over 1991.

Also, upward trends are beginning in single-family and multi-family home building, and in the environmental construction industry. Even though they are still lower than the late 1980s, they are moving in the right direction. The mid-90s could be a growth period with housing and public construction leading the way. (Constructor, January, 1992, p. 11; October 1992, p. 76)

Highway Projections

President Clinton has repeatedly called for major infrastructure work across the nation. After entering office, President Clinton renewed support for the Intermodal Surface Transportation Efficiency Act of 1991. It is the most significant federal legislation since the creation of the Interstate Highway System in 1956. The new six-year authorization potentially provides $151 billion for highway and bridge construction. This represents a significant increase in federal investment to help address the nation's well documented highway and bridge needs. The Federal Highway Administration reported in July that a $74.9 billion annual investment is required by all levels of government to improve the condition of the nation's roads and bridges.

The Administration estimates that this Act will generate or extend nearly 600,000 jobs. The Act further provides $6 billion for large urban areas to meet the requirements of the Clean Air Act. For bridge construction, $16.1 billion is provided to continue the existing bridge program. For airport construction, funding is set at $1.9 billion, a $100 million increase from last year. (Constructor, January 1992, p. 13)

Utility Projections

The Environmental Protection Agency (EPA) State Revolving Loan Fund should provide some increased stimulation in the municipal-utilities market. Congress has improved fiscal year 1992 appropriations in the amount of $1.95 billion. In addition, Congress has directed grant funding to construct waste water treatment facilities in eight cities. This funding represents an increase of $300 million over the amount appropriated in fiscal year 1990. The amount of money spent on drinking water facilities is expected to increase in 1992. EPA recently issued a new set of standards for maximum contamination levels. As a result, utilities are expected to increase spending in 1992 to upgrade their facilities to meet these standards.

Although not a traditional segment of the utility construction market, hazardous waste clean up is becoming more attractive to utility contractors. In 1992, this market should provide many

opportunities. The Superfund program will be funded at $1.6 billion for fiscal year 1992, the same level as 1991, but EPA intends to significantly increase the number of sites on which actual clean up activities are started. Stung by reports of mismanagement, EPA has initiated a plan that will lead to the completion of clean up activities on 140 sites by the end of 1992, 200 sites by the end of 1993, and a minimum of 650 sites by the end of 2000.

Fiscal Year 1992 will also see significant hazardous waste remediation starting at the facilities of the Department of Defense and Department of Energy. Congress recently passed the Department of Defense Authorization Bill, which increased funding for environmental restoration work at defense facilities to $1.18 billion in fiscal year 1992, from $1.06 billion in fiscal year 1991. The Bill also provides $3.7 billion for environmental restoration and waste management at defense facilities. Weapon waste storage and remediation will make up the largest share of the Department of Energy's budget by 1994. Congress is about to complete legislation that would require all federal facilities to comply with existing environmental requirements. This will inevitably lead to additional clean up activities. (Constructor, January 1992, p. 14; Engineering News - Record, October 1992)

Environmental Projections

The Superfund Amendments and Reauthorization Act of 1986 (SARA), coupled with the development of Occupational Safety and Health Act (OSHA) Worker Protection Standard, mandates certification requirements for Environmental workers who are, or will be, employed on hazardous waste clean up projects. Environmental clean up (i.e., hazardous waste removal, asbestos and lead abatement, and nuclear remediation) will continue to be done by a sector of the construction industry. As such, environmental clean up will rival traditional sectors, such as highway and building.

In the 1990s, the demand for Environmental workers will continue to grow dramatically. Environmental clean up is rapidly expanding and encompassing a huge range of individual sites bounded on one end by 52 million lead paint contaminated residential units, and on the other end by 1,200 of the worst hazardous waste sites. The clean up of hazardous materials and specific toxics, such as lead or radiation will require the expenditure of hundreds of billions of dollars over decades. The number of hazardous waste sites now identified continues to increase. The initial estimate of more than 30,000 sites is likely to be exceeded as more and more are identified for clean up.

The EPA has identified more than 1,200 hazardous waste sites and has cleaned up less than 100 sites. The Department of Defense has stated that more than 17,000 sites exist on active and abandoned military bases. Also, the Department of Energy has identified more than 1,700 separate sites connected with its nuclear weapons programs. The Department of Energy clean up program is expected to be given the first contract for the clean up of a uranium production site. The EPA is clearing the way for the construction of state-of-the-art municipal

landfills whose permit has been held up until now. The agency estimates spending $330 million per year. In general, the solid waste market (i.e, land filling, waste-to-energy recycling, waste minimization) is projected to grow from a $30 billion industry at a 15 to 20% annual rate over the next several years. Congress is working on changes related to waste minimization, recycling, and toxics reduction. The EPA has estimated annual compliance costs to amount to $8 billion by the year 2000. There are a number of Clean Water Act storm water discharge regulations which will help sustain a growing environmental marketplace. Hazardous waste management costs will amount to $24.25 billion by 1995 and $41.5 billion by the year 2000. (Environmental Career Opportunities, November 25, 1991)

Construction Administration

Construction projects can be set up and coordinated in several different ways. However, every owner or contractor must follow a basic structure or standard. Each company should have a:

- Project Owner
- Project Administrator
- Architectect or Engineer
- Prime Contractor
- Subconstractor

Most owners or contractors follow this structure when building mega-projects. Many construction companies, as well as architectural and engineering firms are involved in this process. Even small companies that build backyard patios find it easier to complete a job when they follow this basic pattern.

The Project Owner

The project owner is responsible for originating and/or funding the project. For example, on a state highway job, the project owner is the state highway department, and on a municipal project, the municipality is the project owner. The project owners can contract with a project management and architectural or engineering firm to design and administer the project, or they can assume that role themselves. However, when the project is large with a complex design, the owner will often have an experienced project management company, as well as an architectural or engineering firm perform this role.

Project Administrator

Administration firms specialize in project design. To be effective in this role, they need to be knowledgeable in project design and construction techniques. The project administrator is often responsible for paying contractors for work completed, managing the large amounts of construction documents that are a part of every project, and ensuring that the other organizations are coordinating their efforts to complete the project. They usually organize frequent meetings between the other companies to review progress and to discuss problem areas. (Figure 1-2) Project owners can have their project designed by an architectural or engineering firm. Owners can also choose an administration firm that specializes in project design.

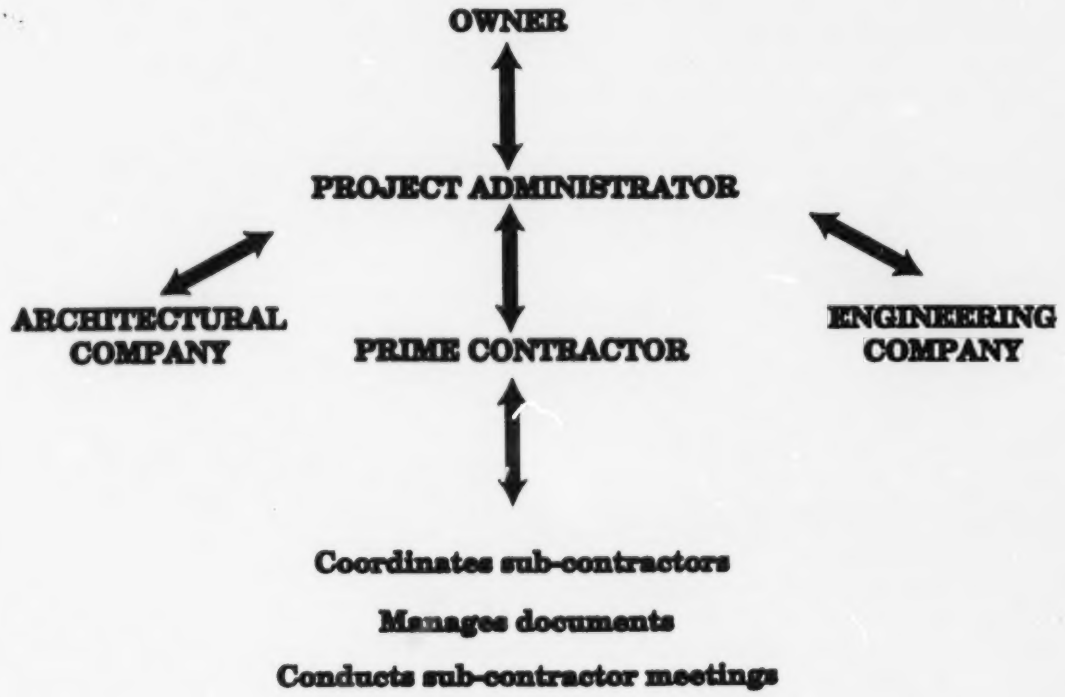

Figure 1-2
Project Structure

The top 10 construction management (administrators) in the world are:

1. Fluor Daniel Inc.
2. Brown & Root Inc.
3. Bechtel Group Inc.
4. The Parsons Corp.
5. M. W. Kellogg Co.
6. ABB Lummus Crest Inc.
7. The Turner Corp.
8. Ebasco Services, Inc.
9. Jacobs Engineering Group Inc.
10. John Brown E & C Inc.

These administrators were "at risk" which means they have financial responsibilities and risks similar to a general contractor. This top 10 list is different than the "for fee only" administrator list. The "for fee only" managers provide their services for a professional fee, and they don't take any risks. (ENR, June 1993)

Architect or Engineer

The architectural or engineering firm provides the project design and is usually responsible for ensuring that the project is built to the design specifications. This means that the project inspectors and testing companies are often employed by the architectural or engineering company. These inspectors and testers track the construction process/progress and provide reports to the architect or engineer. Then the architect or engineer passes the report to the project manager or owner.

Prime Contractor

The prime contractor or general contractor is the company directly responsible for the actual construction of the project. The prime contractor may choose to give the work to the subcontractors, however, most have construction crews of their own to perform the many jobs that are not covered in subcontracts. The prime contractor is responsible for coordinating the work of the subcontractors and for paying them for work completed. (Figure 1-2)

Subcontractor

The subcontractor performs either specialty work that the prime contractor can not do, or work that the prime contractor would rather have other companies perform. The subcontractor's employees are still required to comply with the site rules and operating procedures of the prime contractor, even though they are not direct employees.

Chain-of-Command

Each company involved in a construction project has their own chain-of-command. (Table 1-1) For the purpose of this documentation, we are concentrating on the prime contractor. Normally, their chain-of-command is as follows:

Project Manager

The contractor has one project manager responsible for all of the construction projects. This person is responsible for coordinating equipment, ordering materials, scheduling projects, and allocating company personnel for all the projects awarded to the contractor.

Project Superintendent

The project superintendent follows the directions of the project manager. He coordinates the efforts and activities of all the subcontractors on the project and directs the efforts of the prime contractor's employees. The project superintendent is also responsible for working with the project manager to coordinate material and equipment delivery.

General Foreman

The foreman is responsible for specific areas of the project and follows the directions of the project superintendent. He is responsible for coordinating activities of the labor foreman and all personnel associated with a specific job. For example, a general foreman can be responsible for all concrete forming and placement activities, including scheduling placement activities and monitoring the safety and production of the crews assigned to him/her.

Table 1-1
Chain-of-Command for the Prime Contractor

Contractor Personnel	Responsibilities
Project Manager	Coordinates equipment, orders materials, schedules projects, and allocates company personnel for all the contractor's projects.
Project Superintendent	Coordinates the efforts and activities of all subcontractors on the project, and directs the efforts of the prime contractor's employees.
General Foreman	Coordinates activities of the labor foreman and all personnel associated with a specific job.
Labor Foreman	Coordinates activities of the crew under direction of the general foreman/superintendent. Submits time sheets for personnel/ equipment, prepares weekly progress reports, documents meetings, schedules equipment and material needs.

Labor Foreman

There may also be a labor foreman who is responsible for a smaller crew (3 to 10 laborers). Foremen direct the efforts of the crew to accomplish the tasks assigned by the general foreman or superintendent. Other responsibilities of a labor foreman often include submitting weekly time sheets for personnel and equipment, preparing weekly progress reports, documenting weekly safety and production meetings, as well as scheduling for equipment and material needs.

Roles of the Employer and Employee

The employer (or contractor) and the employee (or laborer) have similar roles in construction work. These roles can be categorized by what the Associated General Contractors (AGC) call "Skill, Integrity, and Responsibility."

Skill

Skill is the technical knowledge and practical experience to execute projects in a professional, efficient, and safe manner. It is the ability to:

- Do the job correctly in a timely manner.
- Complete the work within the estimated project cost.
- Maintain a safe work area.
- Maintain tools and machines.
- Wear the appropriate safety equipment (e.g., hard hats, gloves, respirators).
- Initiate ideas for getting the job done.
- Follow directions.
- Plan and organize work.
- Contain costs.

- Interact effectively at all organizational levels.
- Anticipate and solve problems before they become a barrier to the project.
- Accept change (e.g., shifting priorities, project modifications, and technologically advanced materials and methods).
- Seek out opportunities for advancement and professional development.

Integrity

Integrity is the moral obligation to honor, in a fair and honest manner, every oral and written contract agreed upon with every laborer, client, architect, subcontractor, and material supplier.

Construction projects and profits are built on teamwork. A great feeling of satisfaction comes from the relationships a person makes, keeps, and nurtures with other workers. These relationships help individuals develop a sense of teamwork, so they can keep working towards the common goal of completing the project.

Responsibility

Responsibility is organization and financial resources to fulfill all commitments promptly and completely.

The **employer** is responsible for:

- Treating employees fairly.
- Providing and maintaining a safe workplace that consists of the necessary tools and machines.
- Providing supervision and instruction to ensure the health, safety, and welfare of the workers.

The **employee** is responsible for:

- Showing up on the job at the appropriate time each day.
- Working skillfully, safely, and productively.
- Demonstrating an active concern for quality.
- Fostering a "Can-Do" attitude that will help the laborer and the contractor profit from the project.
- Being punctual. (This is critical, so that the project can be completed within the designated timeframe.)
- Displaying a positive attitude throughout the project. A positive attitude is easily identified by others.
- Setting and successfully achieving personal goals.

A career in the construction industry is usually rewarding for workers. They receive great satisfaction when a construction site starts from a hole in the ground and then transforms into a building. Also, workers feel they have contributed in making history. (Construction Management Practice by S. Peter Volpe, New York: Wiley-Interscience, 1972)

Purpose of a Contractor Association

Membership in associations provide an individual firm with local and national information, such as legislation, labor, contracts, subcontracts, and relationships between owner, architect, engineer, and contractor. The Associated General Contractors (AGC) has 104 local chapters and national headquarters where general contractors can get support and information. The AGC services its 32,500 members by:

- Providing technical support and training information.
- Promoting fair and honorable dealings with construction project owners and with all segments of the construction industry.
- Promoting free and unrestricted access to all construction markets, so that qualified contractors can pursue work competitively.
- Promoting the use of the single contract method of construction. (It is the most efficient and economical system of awarding construction contracts.)
- Working towards developing good relationships between members and their employees to provide safe working conditions, and to promote safe working habits on the construction projects.
- Working towards stimulating new construction markets and to create new jobs.
- Providing profit building services, such as education and training, collective bargaining, legal assistance, insurance programs, and market/ business development.
- Working towards keeping the construction industry from being overly regulated. (AGC National Headquarters, 1992)

CONSTRUCTION LABORER CRAFT

Construction laborers are heavily engaged in all forms of activities, such as construction, demolition, rehabilitation, and maintenance of:

- Residential and commercial properties
- Highways, bridges, tunnels, dams
- Sewage and water facilities
- Nuclear and conventional power plants
- Asbestos and lead abatement
- Hazardous waste and nuclear remediation

In general, laborers are the first craft on the project and the last craft off the project, because they have the necessary skills to begin and complete a project.

Major Job Tasks for Each Construction Industry

The following is a condensed listing of the major job tasks performed by laborers in each construction industry.

Building Construction Industry

Concrete cutting and coring
Concrete placement and finishing
Concrete pump hose set up/operation
Concrete reinforcement installation
Demolition
Elevation and alignment control
Equipment signalling operations
Fencing erection
Forklift operation
Form building
Landscaping operations
Mason tending
Oxyacetylene cutting and burning
Rigging operations
Sandblasting
Scaffold erection
Screed operator
Shotblasting
Site security
Small equipment operation
Soil compaction operations

Highway Construction Industry

Asphalt laborer/raker
Blaster's helper
Clearing operations
Equipment signalling operations
Explosive handler
Grade setter
Guard rail and fencing operations
Hydraulic drill operator
Landscaper
Pneumatic drill operator
Powder man
Rigging operations
Screed operator
Soil compaction operations
Storm drain pipe layer
Traffic control
Truck spotter

Utility Construction Industry

Equipment signalling operations
Hand excavation/backfill
Line and grade operations
Pipe layer (e.g., water, sewer, gas, pipe fusion, and other utilities)
Rigging operations
Shoring operations
Soil compaction operations
Utility testing (e.g., hydrostatic and pneumatic)

Environmental Industry

Abrasive blast cleaning/spraying
Asbestos removal from pipes, vents, girders, and ducts
Clearing right of way
Compaction operations
Confined space cleaning
Containment structures operation
Demolition of structures
Drilling
Drum identification and inventorying
Drum sampling and removal, draining, labeling, transferring, storage
Equipment decontamination
Erection of dikes and containment
Fence erection
Installation of erosion curtains
Installation of protective membranes
Lead paint removal
Locating and uncovering buried drums
Pipe laying in conjunction with leaching and draining operations
Revegetation/landscaping
Spreading of gravel for access roads
Sweeping, shoveling, vacuuming

Benefits of a Union Membership

How much is a union membership worth?

In a 1991 report, the United States Bureau of Labor Statistics (BLS) provided information that proved union membership is worth $122 more a week, than non-union affiliation. Construction union membership paid $246 more per week than working non-union (Figure 1-3).

This report did not include the additional value of benefits, which is about double for unionized workers. According to the government survey, the average weekly earnings in 1991 for full-time unionized wage and salary workers was $526, compared with $404 for non-union workers. Over the year, the average weekly union earnings rose $17, while the non-union workers pay increased $14.

On an annual basis, the benefits package for the union members had nearly 90 percent more benefits than what the non-union employers could provide.

BLS noted that 16.6 million American workers were union members in 1991. These workers were better off economically in just about every category in both the blue collar and the white collar industry.

Highlights from the report follow:

- Male union members averaged $95 more a week than the non-unionized male workers. (The union average increased $10 in 1991.)
- Female union members earned $119 more a week than non-unionized female workers.

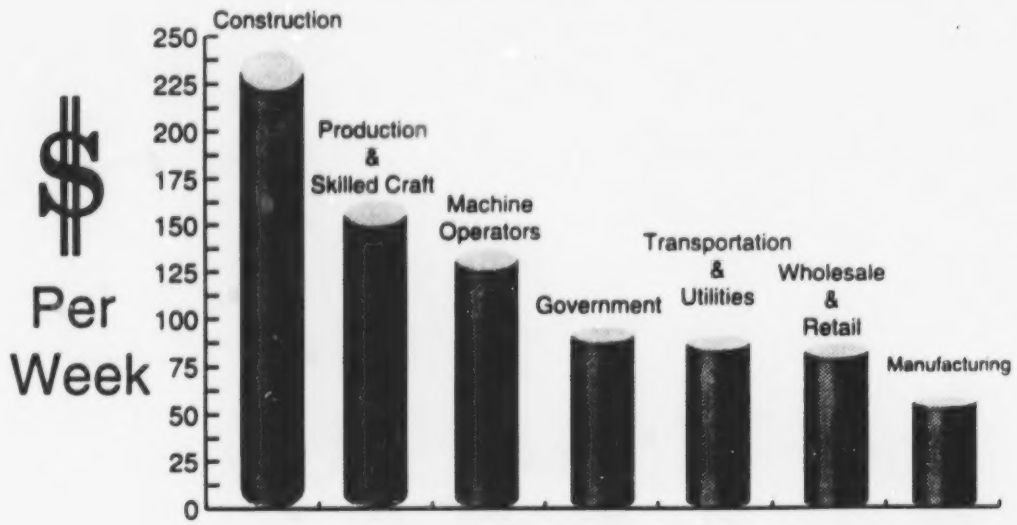

Figure 1-3
Union Membership

- African-American union members earned $147 more a week than non-unionized African-American workers.

- Hispanic union members earned $144 more a week than non-unionized Hispanic workers.

Union workers in many industries receive higher wages than non-union workers. Overall, unionized laborers and helpers earned an average of $177 a week more than workers who did not have a union contract.

The bottom line, especially in today's economy, is to have a good paying job with good benefits. Clearly, a union membership is one of the best investments workers can make for their future because the monetary return on a union card is 14 times the average cost of union dues. The BLS proves what we've known to be true for a very long time: It pays -- in many ways -- to be a union member.

Wages and Benefits

Each local union has its own locally negotiated wage and benefit package for laborers. For example:

We averaged eight 1992 construction agreements across North America and found that the average base rate for a laborer is $14.55 per hour. The lowest rate was $9.20 per hour and the highest rate was $18.91. (Remember, these are only sample rates and are subject to the locally negotiated agreement between the employers and local unions.) According to the Construction Labor Research Council in Washington, DC, laborers' wages will increase 3.4% in 1993. This means the average wage for the eight agreements would increase to $15.04 per hour.

Fringe benefit packages contain different types of benefits that are also locally negotiated. Most contain employer/employee contributions for health and welfare insurance, retirement, and training. Other plans are known to contain benefit packages, such as a vacation benefit, annuities, and legal service benefits.

Once negotiated, the amounts are forwarded by the employer to a fund administrator, who then disperses the benefits as needed.

The average benefit package is $3.18 per hour. With the lowest total package being $1.45 per hour and the highest $4.60 per hour. (Remember, these are only sample benefit packages and may not reflect the benefit structure in your area.)

How to Increase Wages

You can increase your wages by increasing your skill. It has been estimated, that trained laborers work almost 400 hours a year more than untrained laborers. Therefore, the more skills that you have, the more hours you will work in a year.

There is a skill classification for each job performed. (Refer to the section entitled Major Jobs Tasks for Each Construction Industry.) In most construction agreements, these classifications are separated into various wage groups. Each wage group reflects the increased pay associated with the increased

amount of skill required for that classification. For example, in the highway construction sector, an asphalt raker classification pays more per hour than an asphalt worker classification. In the building sector, a tunnel laborer classification pays more per hour than a power and air tool operator classification.

The largest increase in pay will be realized when you advance to a supervisory position. For example, in some agreements, a labor foreman will be paid from $1.00 to $2.00 per hour more than the highest classification supervised. In addition to an increase in wage rate per hour, most foremen will receive additional time for preparation of progress and payroll reports. For example, a foreman may receive an additional $1.00 per hour, plus an extra hour, over the laborer who works the most hours on any particular day.

After you have proven to the contractor that you are a competent and reliable worker, your overtime may increase or you may be chosen to supervise the crew. Your wages will increase along with your job security.

Issues that Affect Wages and Benefits

Prevailing Wage Laws

In 1931, Congress enacted the Davis-Bacon Act that was signed into law by President Herbert Hoover. At the time the law was passed, Congress and the President were concerned about the bidding process on federal construction projects which was resulting in competitors underbidding each other by paying substandard wages. The bidding process was harmful to the workers and the fair contractors. The Davis-Bacon Act assures that workers on federally financed construction projects will be paid wage rates that prevail in their area of the country.

In the construction industry, work is funneled to contractors through a system of competitive bidding, that is, the lowest bidder will likely be awarded the project. Since labor is generally the only component of construction costs which a contractor can hope to exercise any significant degree of control, contractors have every incentive to slash wages in order to become the successful bidder.

Coupled with this basic characteristic of the competitive bid process are various economic attributes of the construction industry itself, which makes conditions extremely unstable for workers and contractors alike. For example:

- Employment is "casual" in the construction industry. (Workers move from contractor to contractor as one project is finished and another is beginning.)

- Employment varies from season to season. (Unemployed construction workers are persistently above the national average since construction work is often seasonal.)

With these pools of unemployed construction workers, unscrupulous contractors will not hesitate to lower wages in order to undercut the bids of fair contractors who truly desire to maintain adequate labor standards.

Local communities and taxpayers derive important protections from prevailing wage laws. The old adage "you get what you pay for," certainly holds true in the construction industry. Construction projects, particularly those in the public sector, such as dams, powerplants, highways and schools, require highly skilled labor. There is no doubt that wages of construction workers could be cut to the minimum by hiring unskilled workers. But would this really save the taxpayers money? The answer is no. First, unskilled workers take longer to do a job than skilled workers. Therefore, productivity would be down and the costs to the taxpayer would rise. Second, if the government wants quality construction projects, with fewer long-run maintenance costs, then it must attract skilled workers. And in order to attract qualified and well trained construction workers, it is necessary to pay no less than the local prevailing wage rate.

Right-To-Work States versus Collective Bargaining States

The National Association of Manufacturers began the first open shop campaign 88 years ago. Recently, "Right-to-Work" advocates have spoken glowingly of the benefits that flow from the open shop philosophy. Workers do not benefit from the Right-to-Work philsophy because contractors are allowed to pay workers wages below the industry average for their skills.

But the latest data comparing "Right-to-Work" states with free collective bargaining states reveal a continuing gap between the two groups in key economic and social indicators, such as wages, poverty, and workplace safety.

The following compares Right-to-Work states with Collecting Bargaining states:

- Workers in "Right-to-Work" states have lower per capita personal incomes. Workers in the free collective bargaining states earn $3,067 more per year.

- Residents in "Right-to-Work" states pay higher sales taxes. Sales Tax -- the most regressive of all taxes -- makes up 60.3% of "Right-to-Work" states' tax income, compared to 43.8% of free collective bargaining states' tax income.

- "Right-to-Work" states have higher job fatality rates. Only 14% of the "Right-to-Work" states have achieved job fatality rates at or below the national average, compared with 67% of the free collective bargaining states.

- "Right-to-Work" states spend less on education. Only 10% of the "Right-to-Work" states are at or above the national average of expenditures per pupil in public schools. 57% of the free collective bargaining states can make that boast.

Taft-Hartley Labor Act

In 1947, the Taft-Hartley Labor Act, sponsored by Senator Robert A. Taft and Representative Fred A. Hartley, was passed even though President Harry Truman had vetoed it. This Act has the following provisions:

- Declares that the union or the employer must notify the other party and a government mediation service before ending a collective bargaining agreement.

- Authorizes the government to obtain an 80-day injunction against any strike that endangered national health or safety.

- Prohibits jurisdictional strikes and secondary boycotts.

- Denies protection to workers on wildcat strikes.

- Outlaws the closed shop.

- Binds unions to file evidence with the U. S. Department of Labor that their union officers are not or were not communists. (Communists are not permitted to use the facilitities of the National Labor Relations Board.)

H.R. 5, The Workplace Fairness Bill

In a free society, a worker should be free to join a union and engage in concerted activity without being subjected to employer punishment or discrimination. Since 1935, workers have been assured by federal law, that they have the right to collective action and the right to strike.

Today, however, workers are being told, "You can't be fired for striking, but if you strike, you will be permanently replaced." Clearly, that's a contradiction in the law.

H.R. 5, the Workplace Fairness Bill, enacted by Congress in 1991, bans the use of permanent replacements during a lawful economic strike.

OSHA Reform Legislation

More than two decades ago, Congress enacted the Occupational Safety and Health Act (OSHA), that guarantees every American worker a safe and healthy work place. Since this act was passed, some progress has been made in improving working conditions, but for many workers, the right to a safe job is still a promise, not a reality.

The tragic fire that killed 25 workers behind locked doors at a poultry processing plant in Hamlet, North Carolina illustrates the shortcomings of OSHA. The plant was never inspected during its 11 years of operation, and workers did not receive any safety training.

Workers rarely complained for fear of losing their jobs. Unfortunately, these conditions are not unique. There are tragedies waiting to happen throughout the country.

The OSHA Reform legislation (S. 1622, H.R. 3160) is now being constructed by Congress. It will allow workers a voice in protecting their safety and health on the job, and it will make other important improvements in the law:

- Employers will have to establish safety and health programs to identify and correct hazards.

- Employers will have to establish joint safety and health committees for work places with 11 or more employees.

- Employers will have to provide workers with safety and health training before job assignments, and to retrain workers at least once every year.

- All workers, including federal, state, and local employees will be covered under the Act.

- OSHA jurisdiction could be given to another agency only when OSHA determines that the other agency's standards and enforcement are as effective as OSHA's.

- Workers will have the right to refuse unsafe work. They will also be protected against discrimination for complaining and reporting injuries, illnesses, and unsafe conditions.
- OSHA will have to issue final standards on key hazards by certain dates.

- OSHA will be required to update the exposure limits for toxic substances on a regular basis.

- Enforcement procedures will be strengthened to enable workers and their representatives to challenge weak citations and settlements. This will create stiffer criminal penalties for offending employers.

(AFL-CIO 1992 Leadership Manual -- Current Issues.)

LABORERS' INTERNATIONAL UNION OF NORTH AMERICA (LIUNA)

The Laborers' International Union of North America (LIUNA) is an organization with an active membership in excess of 500,000 laborers. LIUNA's membership includes a substantial number of minority and female members, as well as members from all ethnic backgrounds. The members are located throughout the United States and Canada and are organized into approximately 900 unions. LIUNA represents blue collar and white collar workers, such as:

- Concrete workers
- City and municipal employees
- Grounds crews
- Teachers
- Health care and nursing home employees

The preamble (beginning statement) of the LIUNA Constitution reads:

We, the members of the Laborers' International Union of North America, believing that Man is endowed with the inalienable natural right to provide for his existence and that of his family, and further believing that Man has the right to band with others who have a common or mutual interest in the protection of these natural rights, in a proper and lawful manner, do hereby adopt this as the Constitution of the Laborers' International Union of North America. (Source: LIUNA Constitution)

History

Reform movements like the Knights of Labor failed to organize laborers. But before the turn of the century, a number of local construction laborers' unions formed because of the exclusionary practices of craft unions. These newly formed locals provided a haven for laborers who weren't allowed to join building trade unions, or for laborers who needed a refuge from the appalling work conditions. At that time, poor working conditions were caused by unstable employers, fluctuating industry demands, and competition from the under-employed and unorganized.

The laborers' locals helped to stabilize a chaotic industry by giving employers a steady supply of experienced and productive workers. The locals also helped their members through collective bargaining and paid attention to their individual needs. They became a force in the family, community, and social life of their members. One of the locals' first acts in 1906 was to establish the Death Benefit Plan, so that members, despite their poverty, could be buried with dignity.

The district councils that were formed later produced another widening response to the laborers' needs. They came into existence when local unions, within a certain geographic area, felt they had to band together and hire a "walking delegate." These delegates policed work, protected jurisdictions, collected dues, and settled disputes.

Another development was the emergence of national, and international unions. Union locals needed to share information and experience and coordinate responses to employer organizations, such as the National Builders Association or the National Erectors Association. Unions were a powerful force around the turn of the century. (Working at the Calling, LIUNA, 1991)

LIUNA Benefit Funds

Laborers-Employers Cooperation and Education Trust (LECET)

In 1989, LIUNA established a labor-management partnership between LIUNA and signatory contractors, called the Laborers-Employers Cooperation and Education Trust (LECET). It is an educational fund financed through collective bargaining. LIUNA's mission is to generate business opportunities for union contractors and help its members to find safe and secure jobs. They also:

- Assist LIUNA members and contractors in supporting necessary safety legislation and enforcement.
- Establish the prevailing wage rate for the type of work performed on federally funded projects.
- Work with environmental clean up agencies to provide a qualified work force.
- Sponsor educational seminars to develop labor-management programs.
- Clarify new regulations and their impact.

Laborers' Health and Safety Fund of North America (LHSFNA)

In 1988, LIUNA established the Laborers' Health and Safety Fund of North America (LHSFNA) to:

- Improve the health status of construction laborers and their families.
- Improve safety and health conditions on the job.
- Assist in the control of the rising cost of health care insurance coverage.

Among its many activities, LHSFNA:

- Provides education and technical support in the fields of occupational safety and health.
- Conducts research into the causes of occupational injuries and illnesses.
- Develops intervention and prevention programs.
- Testifies before Congress and federal agencies on legislative and regulatory matters.
- Participates on committees, such as the Childhood Lead Poisoning Prevention Committee, and the Housing and Urban Development Advisory Group.

All initiatives are directed toward assisting LIUNA members and their employers, while improving the quality of life for the membership and their families.

Laborers-AGC Education and Training Fund

Laborers-AGC Education and Training Fund is a nonprofit, jointly administered labor-management trust fund. The parties to this fund are the:

- Laborers' International Union of North America (LIUNA)
- Associated General Contractors of America (AGC)

Laborers-AGC acts as an umbrella organization to provide primary support for over 70 funds engaged in construction and environmental training. They helped train LIUNA members for over 25 years.

History

Recognizing the inadequacy of on-the-job training, LIUNA began to formally train laborers with the assistance of federal funds from the Manpower Development and Training Act of 1962. The first training programs were designed to train laborers in 19 states. From this modest beginning, LIUNA expanded these pilot training programs throughout the country. These programs demonstrated to contractors and union officials that standardized quality training was essential. Training increased productivity and incorporated health and safety training as an integral ingredient for all courses. A problem inherent to all such subsidized efforts quickly became evident when government funding ended.

These pilot programs and the loss of federal funds brought about the following developments:

- Federal funds were replaced with a negotiated hourly contribution to support the continued effort.

- A Joint training venture between LIUNA and AGC to create Laborers-AGC.

Skills Training

From 1969 to 1978, the Laborers-AGC's main commitment was to skills training. The staff developed films, filmstrips, as well as student and instructor manuals to support basic skills training courses administered by local training funds.

These courses along with the materials developed by Laborers-AGC, comprise the core curriculum of the training funds now affiliated with the Laborers-AGC. The courses include:

Air Compressor
Air Tool Operation
Asphalt Raking
Blueprint Reading
Chain saw Operation
Concrete Placement
Concrete Sawing
Construction Surveying
Craft Orientation
Explosives/Blasting
First Aid/CPR
Foreman Preparedness
General Construction
Laser Operation
Mason Tending
OSHA Standards
Oxy-Acetylene Cutting
Pipe laying
Rigging and Signaling
Rock Drilling
Rough Terrain Forklift
Sandblasting
Scaffolding
Small Gas Engines
Soils Compaction
Traffic Control
Transit and Level
Trenching and Shoring

Several of these courses have become "industry standards," such as those involving trenching, shoring, and scaffold building. Audio-visuals developed for these courses have long been part of the OSHA inventory of training materials used by their compliance officials. OSHA training programs have used these audio-visuals, giving them credibility among contractors. Over the past 20 years, Laborers-AGC has invested nearly $12 million in the development, revision, and updating of these courses, as well as other related materials. Laborers-AGC has developed environmental programs that have received recognition as quality training courses. The environmental courses cover the following areas:

- Hazardous Waste
- Asbestos
- Lead
- Radiation
- Underground Storage Tanks

Courses are offered several times a year by a training fund. They may be as long as a six weeks or as short as one to three weeks. The six-week program is a comprehensive overview of all skills, while the one to three-week program focuses on specific skills. The local funds have very extensive training centers, and many of them are full service residential facilities. Each course involves classroom work and intensive hands-on training with a special emphasis placed on safety and health.

The classroom instruction can consist of:

- Hands-on training
- Videos and/or slide presentations
- Lectures
- Group discussions
- Introductory demonstrations for tool, equipment, and work procedures
- Field trips

Each training course may have 60-95% hands-on site specific training. This approach ensures proper and safe operation of the tools, equipment, and work procedures. The achieved goal is a training process that is planned, coordinated, and relevant to the work that the laborers would actually perform. Laborers-AGC incorporates information on industrial hygiene and other worker safety and health issues into the programs and materials that are provided to local funds for use in their basic skills training activities.

Beginning in 1986, Laborers-AGC returned to developing basic skills training curricula because of recommendations from an ad hoc committee representing a cross-section of local training funds. The previous process for program development was refined to include a Curriculum Review Committee comprised of expert representatives from local funds. The committees were used to aid in structuring the basic skills courses, and as a peer review process for the course materials as they were developed and refined by Laborers-AGC staff.

Late in 1989, other specific construction skill areas, such as Asphalt Raking, Concrete Placement, Mason Tending, and Pipe laying were included in this program. The program also took on a new name, called the "Construction Skills Training Program" (CSTP). It offers training to all construction laborers, regardless of geographic location in the United States or Canada. To date, this program has sponsored training for over 1,160 laborers at 10 regional training sites.

Using the CSTP as a model program, Laborers-AGC received funding for $1 million from the U.S. Department of Education for a "Cooperative Demonstration Grant." This grant provides a model for local training funds to replicate regional training and to establish a complete career path for construction laborers. The career path includes the establishment of a school-to-work connection, competency certifications at increasing proficiency levels, and post-secondary accreditation of construction and environmental skills training.

Various Pension Funds

Local, district council, and international pensions were wisely negotiated with unionized contractors to support LIUNA members when they retired. These solid pension plans give members comfort in knowing they will retire with a dependable income.

Construction Laborer Craft Career Path

Although the training funds offer their members high quality training, most do not offer sequential training courses or a complete career path option. For this reason, Laborers-AGC developed a series of courses that are taken sequentially. These courses provide a logical series of development steps for new members, and

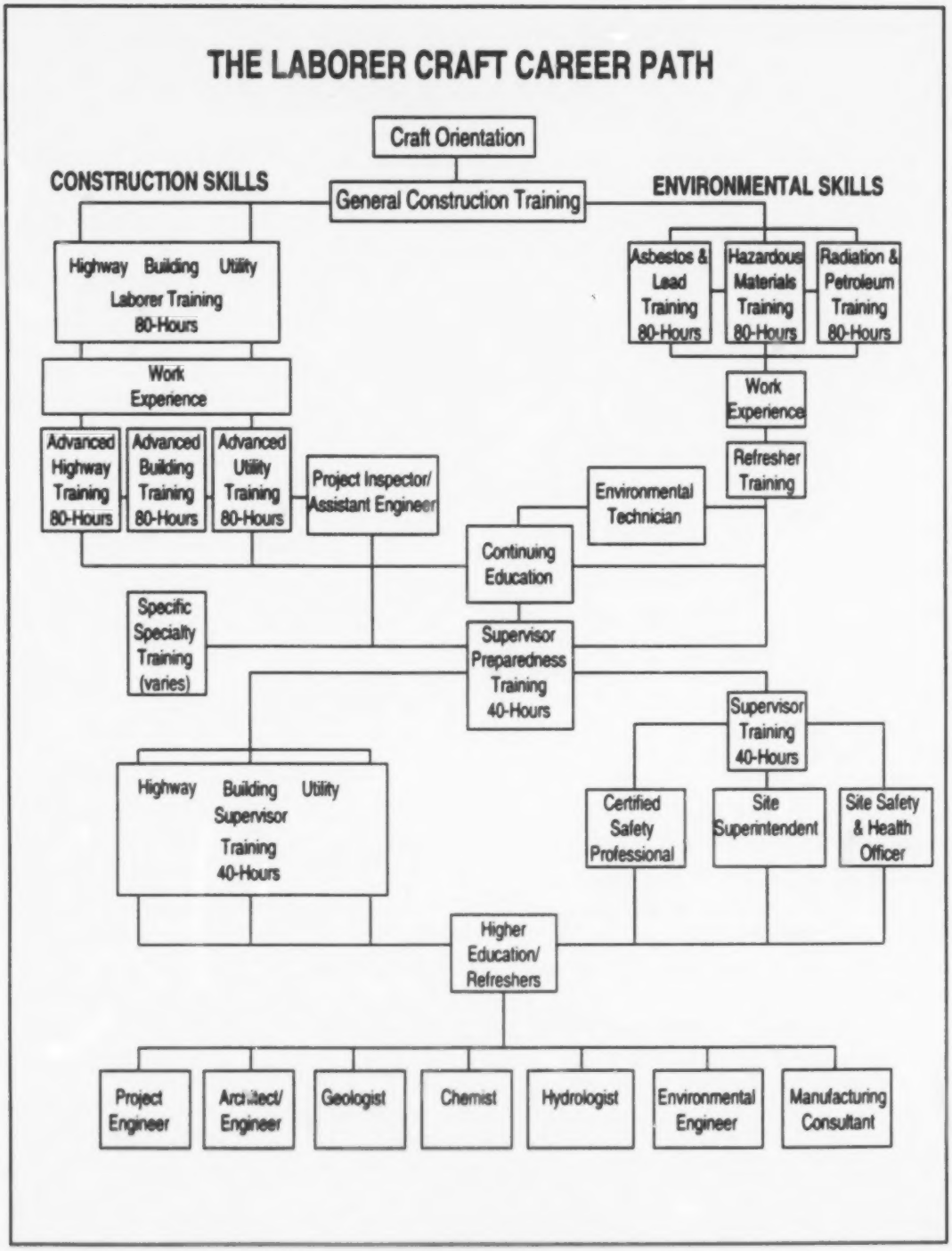

Figure 1-4
The Career Path

upon completion, a member becomes a knowledgeable and skillful laborer.

Under the Department of Education grant, Laborers-AGC developed the "Construction Laborer Craft Career Path" program. It is a formalized, progressive, and sequential professional development plan.

The Career Path in Figure 1-4 outlines the entire range of required knowledge and skills from pre-job (Level I), to specialized (Level II), to advanced (Level III). The following describes each program plan level:

General Construction Skills (Level I)

This 80-hour program is the first level offered. It serves as a prerequisite to other construction craft training courses. There is an introductory overview presented for each of the following topics:

- Material recognition
- Compaction techniques
- Cutting and burning
- Hand, air, and power tools
- Small gas engines
- Introductory construction math
- First aid, CPR
- Traffic control
- Knots and rigging
- Hand signals
- Hazard communication
- Safety and health issues

Construction Craft Skills/ Environmental Craft Skills (Level II)

This program level offers trade-specific training through standardized and comprehensive courses in different skill areas, such as:

- Pipe laying for utility projects
- Grade checking for highway projects
- Concrete placement for building projects
- Asbestos and lead abatement
- Hazardous waste removal

One of the most dramatic efforts made by any union to enter a new marketplace is the Laborers-AGC training in environmental clean up. LIUNA carefully staked out its own territory in the rapidly growing clean up industry and is winning it over through training. The mainstay of their effort has been a five-year grant and supplement from the National Institute of Environmental Health Sciences (NIEHS). Laborers-AGC has trained over 10,000 workers under the NIEHS grant. The grant provides training to the laborers, at no cost, and to the training fund, at a minimal cost. In 1989, a site visit team from NIEHS rated the Hazardous Waste Worker Training Program as the best in the country.

Quality training has been a benefit to LIUNA since they are getting the biggest union share of hazardous waste work, which promises to be a trillion-dollar industry in twenty years. The 80-hour Hazardous Waste program is used to train personnel from other unions and government agencies. There is also a mobile training operation that can

service any training site in the country. The bottom line is that union contractors are getting workers who are fully trained in all levels of hazardous waste removal. These workers are job-ready, legally certified, and trained in construction labor.

The oldest and most popular environmental program is the 32-hour Asbestos Abatement Worker course. Since its inception, in the fall of 1987, 150 instructors from 50 affiliated training funds were trained. This course certified over 30,000 laborers in removing and disposing asbestos safely. The EPA gave over $800,000 in grant support from 1989 to 1992 to help expand the course and initiate new training. Laborers-AGC is now trying to increase its outreach by setting up urban training centers in greater Los Angeles and greater Detroit for the special needs of cities dealing with asbestos.

Laborers-AGC's latest offering is a 32-hour course in Lead Abatement. It has been underway in at least seventeen training centers. Laborers-AGC anticipates that the Department of Housing and Urban Development will adopt training and worker certification requirements. In addition, Laborers-AGC anticipates that they will provide funding to support the training required for a clean up effort, that many predict will dwarf asbestos before it is completed. Laborers-AGC's work in lead abatement, along with the Health and Safety Fund, has again put LIUNA out in front in remediation techniques; this time in a field with few players.

A course in Nuclear Remediation initiates the laborer into a whole new area with the clean up of nuclear power plants. The "bomb factories" weapons facilities, such as Hanford and Savannah River, are one of the newest environmental scandals. Operated by the Departments of Energy and Defense, these places produced plutonium and other highly toxic materials whose by-products are just as dangerous. Improperly disposed of in many cases, these by-products are in the earth, ponds, and tanks, and in some cases, ground water. This clean up will cost billions of dollars. Fully trained and protected laborers will be needed on these jobs well into the 90s.

Supervision and Leadership (Level III)

This level III program provides an optional career path for those interested in increased job responsibility. It serves as a stepping-stone for jobs such as:

- Laborer Foreman
- General Foreman
- Site Superintendent
- Certified Safety Professional
- Site Safety and Health Officer

The 40-hour Foreman Preparedness Course, covers the following topics:

- Communication
- Dealing with people
- Job instruction training
- Construction math
- General project skills
- Problem solving

The laborer demonstrates proficiency at each level through competency or mastery tests. Laborers who are presently working can test into an

appropriate level, so that the industry can recognize their achievements as they successfully complete the training. Competency certification enables the local union officials and the contractors to know their laborers' qualifications.

Laborers-AGC is working with the Department of Education to establish standards for awarding credit for training and work experience for an Associate of Arts Degree. Recommendations for college credit by the American Council on Education has recently been made for the following environmental courses:

- Hazardous Waste Worker (3 credits)
- Hazardous Operations (2 credits)
- Fermco (3 credits)
- Lead (2 credits)
- Radiation Worker (1credit)
- Asbestos Worker (2 credits)

Higher education serves as a stepping-stone for jobs, such as:

- Project Engineer
- Architect/Engineer
- Geologist
- Chemist
- Hydrologist
- Environmental Engineer
- Manufacturing Consultant

The Construction and Environmental Literacy program is a Laborers-AGC program that provides an incentive for laborers to develop themselves professionally.

Construction and environmental literacy has become a key issue for Laborers-AGC. They received a grant from the Department of Education to develop two new programs. One program is designed for non-English speaking laborers and the other one prepares laborers for environmental work. These new programs complement the existing "Learn at Home Literacy Program" which was used by over 1,200 members in its first year.

Comment From Arthur A. Coia, General President, LIUNA

"(LIUNA is) in the third successive year of membership growth. (This) is due to the recognition that union workers retain a big advantage in their paycheck and in fringe benefits. Union wages are about one-third higher than those paid to non-union workers. And union workers earn about 75 percent more in fringe benefits...Where there is union representation, unilateral changes in wages, hours, and working conditions are prohibited by law. Disputes with the employer are settled more objectively, because they are usually subject to resolution by an impartial arbitrator...

LIUNA and other unions are also reaping the benefits of their long commitment to education and training programs. Non-union workers are often discarded by employers when their immediate usefulness is completed...LIUNA, in conjunction, with our union contractors, has developed training, education, safety, health, and pension programs predicated on the long-run development of our members, contractors, and industries. Each year, we provide tens of thousands of our members with courses to upgrade their skills, enhance their productivity, and provide them with a long-term bond upon which they and their families can depend.

When workers, particularly the young, are given the chance to freely decide whether to join a union, they vote overwhelmingly in the affirmative. Election results in much of the public sector, and all across Canada reveal that workers in all walks of life overwhelmingly prefer union representation.

Workers throughout the world are clamoring for the freedom of association and a democratic voice in their affairs. We at LIUNA are proud to be part of an international movement to help workers gain greater control over their own destiny. We stand ready and willing to assist in their desire for union organization."

ASSIGNMENT SHEET

1. What does the term "construction laborer" mean?

2. What does a construction laborer do? (Please answer in one sentence.)

3. Why do you want to be a construction laborer?

NOTES: